



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,871	03/12/2002	Andre Haufe	7040-54	2940
21324	7590	01/14/2004	EXAMINER	
HAHN LOESER & PARKS, LLP TWIN OAKS ESTATE 1225 W. MARKET STREET AKRON, OH 44313			GABOR, OTILIA	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/070,871

Applicant(s)

HAUFE, ANDRE

Examiner

Otilia Gabor

Art Unit

2878

-- *Th MAILING DATE of this communication appears on the cover sheet with the correspond nce address --*  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 and 22-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 22-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment***

1. The amendments filed 11/25/2003 have been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20, 22-24, 26, 28-53 are rejected under 35 U.S.C. 103(a) as being as being unpatentable over Pantus (U. S. Patent 5499016) and Vick et al. (U. S. Patent 5473942).

Pantus discloses an apparatus and method for detecting a person or object moving towards the sensor device, the device comprising:

- a radiation sensor arrangement 11 for detecting electromagnetic radiation emanating from the person or object (passive detector)
- a parameter evaluation means comprising:
  - o a source of radiation 20 emitting light in the near infrared wavelength range in such a way as to fall onto the person or object approaching the passive detector 11
  - o detector 21 detecting the light reflected from the person or object moving towards the passive sensor 11

- a peak detector 29 to detect the peak amplitude signals from the detector 21 in order to deliver an additional signal to
- an evaluation unit 31 connected to the sensor arrangement which:
  - first evaluates the normal variation in signal amplitudes over time of the radiation emanating from the source 20 and scattered from the detector arrangement window and forms a normal radiation pattern and
  - then evaluates the variation in the signal amplitude over time to detect whether there is a significant change in the signal amplitude and
  - then based on the detected signal variation it determines whether there is a person approaching the detector arrangement to sabotage it, or whether the detector was painted over or whether the detector was covered (i.e., the signal patterns are individualized to particular situations) and
  - actuates an alarm 4 if it determines that the signal pattern is abnormal.

In operation, the detector arrangement uses two types of radiation detectors, a passive detector which detects the radiation emanating from an approaching object or person, where the detector is responsive to a radiation in the infrared or visible wavelength range (there is no limitation as to the type of radiation capable of being detected, see Col.2, lines 47-60) (claim 1) and a second active detector which responds to a radiation in the second wavelength range (infrared) which radiation is emanating from a source and is reflected by the approaching person. The pattern of the signal amplitude of the

reflected signal, and the time variation thereof, is then compared to the original pattern or normal signal amplitude previously recorded and stored. A comparison between the two patterns determines whether the person approaching the detector arrangement is an authorized person, is a person ready to sabotage the detector or if there is a covering plate on the detector, based on the signal amplitude which is different for different situations, i.e., the scattered signal pattern detected can be lower or higher than the normal signal pattern.

Regarding claim 3, the radiation source 20 emits a radiation in the wavelength range of between 350 to 4000 nm (see claim 3 in Col.10).

The radiation source 20 emits a very specific radiation (pulsed at high intensity with very specific pulse repetition time), i.e., a coded signal which is then picked-up by a peak detector 29 to determine the proportion of the coded signals in the overall detected radiation.

Pantus fails to disclose a counter for counting the persons moving in a vehicle as well as the measurement of the transit time as an additional signal to more precisely evaluate whether the person is moving towards or away from the detector. Measuring the transit time between emitted reflections is a conventional way, as clearly shown by Vick et al., of determining the location and number of objects in a particular space. One of ordinary skill in the art would have been motivated to include the transit time measurement of Vick et al. in the position determination method of Pantus since it adds to the more precise determination of the object or person movement in the surveilled space. Vick et al. uses the detection of the sound emanating from the objects

as the additional signal wherefrom the transit time is calculated (claims 19, 50, 51) and the number of objects moving counted.

Regarding claims 18, 20, 48, 49, 52, 53 none of the references include the detection of the scent or hair color as the additional signal, however these limitations are considered an obvious matter or design choice since the Applicant did not disclose that having these limitations solve any stated problems and since Pantus does not put any limitations to the source and second detector to be used and thus it would have been obvious to one of ordinary skill in the art to use any combination of signal type suitable for a particular application (i.e., if the distinction between the reflected signals is based on hair type or scent is desired then suitable detectors are used to detect these signals).

4. Claims 25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pantus and Vick and further in view of Sheffer (U. S. Patent 5101194).

Regarding claims 25 and 27 Pantus discloses the device for monitoring the movement of a person or object but he fails to add as the additional signal the degree of reflection from the person, however one of ordinary skill in the art would have been motivated to add this additional signal for an increased accuracy of the detected signal since as clearly shown by Sheffer this constitutes a conventional method to differentiate between radiation reflected by a person and that reflected by an innocent pet or non-moving object. Sheffer includes in the process of signal evaluation, the degree of reflection of radiation from the person as the defining additional signal that is compared to a normal signal reflection pattern in order to determine whether the reflection pattern

is one that corresponds to a moving person or a stationary object or pet (claim 25). The comparison is obtained from the intensity patterns of the reflected radiation (claim 29). See Figs.1, 2 and Cols 3-8.

### ***Response to Arguments***

5. Applicant's arguments filed 11/25/2003 have been fully considered but they are not persuasive. The argument that claims should be allowed because the detection device disclosed in the reference Pantus is not particularly useful, is not persuasive because the Applicant did not discuss how the claims avoid the references or distinguish from them. The argument that Pantus did not disclose the direction of movement of the detected object is addressed in the rejection above. Also, the functional limitation that the device is used to count passengers on a transportation vehicle has not been given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6<sup>th</sup> paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279. Also, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138 (CCPA 1946).
6. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, there is motivation to combine the references because each one teaches about introducing different signal detection steps separate from the one already disclosed in Pantus, where the combination of these signals adds to the more accurate detection of the moving object. Because one major problem in the field of surveillance is the generation of false alarms, there is indeed motivation to detect not one but several types of signals coming from the object to more accurately determine whether the moving body is indeed worth detecting.



***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 703-305-0384. The examiner can normally be reached on Monday-Friday between 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Application/Control Number: 10/070,871  
Art Unit: 2878

Page 9

og



**DAVID PORTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**